

PINEAPPLE DISTRIBUTION CLASSIFICATION USING RGB AND FUZZY

EZRIN TASNIM BIN ABDUL GANI

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Saya EZRIN TASNIM BIN ABDUL GANI ( 880328-14-5755 )  
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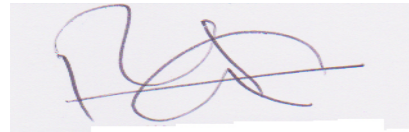
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## LIST OF SYMBOLS

$m$	mass of trolley (kg)
$m_1$	mass of the Hook (kg)
$m_2$	mass of the Payload (kg)
$x$	Trolley Position (m)
$F$	Force apply to the trolley (N)
$\theta_1$	hook swing angle (rad)
$\theta_2$	payload swing angle (rad)
$l_1$	length of the pendulum at hook (m)
$l_2$	length of the pendulum at load (m)
$g$	gravity acceleration ( $\text{m/s}^2$ )
$\mathbf{g}$	gravity effect
$\mathbf{q}$	state vector
$\boldsymbol{\tau}$	control vector
$\omega_n$	natural frequency
$\zeta$	damping ratio
$A$	amplitude of the impulse
$t_0$	time location of the impulse

## **LIST OF ABBREVIATIONS**

RGB	Red Green Blue
HSV	Hue, Saturation and Value
FAMA	Federal Agricultural Marketing Authority
FIS	Fuzzy Inference System
CCD	Charged Coupled Device
MATLAB	Matrix Laboratory